CLAIMS

1. A method for the treatment and/or the prevention of diseases linked to the accumulation of triglycerides in tissues and blood comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

2. A method for the treatment and/or the prevention of diseases linked to an imbalance of cholesterol in disfavour of HDL-cholesterol in tissues and blood comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

3. A method of treatment for lowering the blood levels of triglycerides comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

4. A method of treatment for balancing the blood and/or tissues level of total cholesterol in favour of HDL-cholesterol comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

5. The method according to anyone of claims 3 or 4 for treating or preventing hypertension.

6. A method of treatment for lowering liver triglyceride levels comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

7. The method according to claim 6 for treating or preventing hepatic steatosis and related liver diseases.

8. A method for the treatment or prevention of an obese condition, said method comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

9. A method of treatment for the reduction or inhibition of the gain of body fat comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

10. A method for alleviating resistance or restoring sensitivity to insulin comprising at least the step of administering to a human or non human animal in need thereof, as therapeutically active agent, an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

11. A method according to claim 10, for lowering the blood levels of insulin and/or glucose.

12. A method according to claim 10 or 11, for increasing the blood levels of adiponectin.

13. A method according to anyone of claim 10 to 12 for treating or preventing type 2 diabetes and related cardiovascular diseases.

14. The method according to claims 1 to 13, wherein the β-aminoisobutyric acid derivative an organic or inorganic salt, an ester or amide thereof.

15. The method according to claims 1 to 14, wherein β-aminoisobutyric acid is of configuration L or D or under a form of a mixture of L and D configurations.

16. The method according to claims 1 to 15, wherein the animal is a human.

17. The method according to claims 1 to 15, wherein the animal is an agricultural animal.

18. The method according to claims 1 to 15, wherein the animal is a domestic animal.

19. The method according to claims 1 to 15, wherein the animal is a laboratory animal.

20. Use of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof as therapeutically active agent for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of diseases linked to an accumulation of triglycerides in tissues and blood.

21. Use of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof as therapeutically active agent for the preparation of a pharmaceutical composition

intended for the treatment and/or prevention of diseases linked to an imbalance of blood and/or tissues level of cholesterol in disfavour of HDL-cholesterol.

22. The use according to anyone of claims 20 or 21, for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of hypertension, angina pectoris, myocardial infarction and/or hyperlipemia.

23. The use according to anyone of claims 20 or 21, for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of hepatic steatosis, steatohepatitis and/or diabetes.

24. The use according to anyone of claims 20 to 21, for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of the syndrome X (i.e. metabolic syndrome).

25. Use of β-aminoisobutyric acid as therapeutically active agent for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of disease linked to an accumulation of insulin or glucose and/or decrease of adiponectin.

26. Use according to claim to claim 25 for the preparation of a pharmaceutical composition intended for alleviating the resistance or restoring the sensitivity to insulin.

27. Use according to anyone of claim 25 or 26 for the preparation of a pharmaceutical composition intended for the prevention and/or treatment of diabetes type 2.

28. The use according to claims 20 to 27, wherein β-aminoisobutyric acid is as defined in claim 14 or 15.

29. A pharmaceutical composition comprising as therapeutically active agent at least an effective amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof.

30. The pharmaceutical composition according to claim 29 for the treatment and/or prevention of hypertension, fatty liver and metabolic syndrome.

31. The pharmaceutical composition according to claim 29 for the treatment and/or prevention of an obese condition.

32. The pharmaceutical composition according to claim 29 for the treatment and/or prevention of diabetes type 2.

33. The pharmaceutical composition according to claims 29 to 32, wherein β-aminoisobutyric acid is as defined in claim 14 or 15.

34. The pharmaceutical composition according to claims 29 to 33, comprising a pharmaceutically acceptable carrier or excipient.

35. A nutritional composition comprising as nutritional active agent an efficient amount of β-aminoisobutyric acid, derivative, prodrug, metabolite or complex thereof effective to reduce or to prevent an increase in the total body fat mass in human or non human animal.

36. The nutritional composition according to claim 35, wherein β-aminoisobutyric acid is as defined in claim 14 or 15.

37. A method for producing reduction of the fat mass in a human or non-human animal in need thereof, comprising administering thereto an effective amount of nutritional composition according to claim 35.